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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Rick C. Stevens et al

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Examiner: Hughes

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For: OPTICAL COUPLING

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Carl L. Johnson

Carl L. Johnson

March 14, 2006

Honorable Commissioner of Patents and Trademarks
Alexandria VA. 20231

Sir:

REMARKS

The applicant has received the office action of December 14, 2005 wherein the office rejected claims 1, 2, 10, 12, 14, 15, 17, 19, 20, 22, 23, 26, 27, 29 and 30 under 35 U.S. C. 102 (e) as being anticipated by Mershon et al and claims 1, 3-9, 11, 13, 16-18, 21 and 26-28 as being unpatentable over Mershon et al in view of Allman et al. Claims 17 and 24-25 were rejected under 35 U.S.C. 103 as being unpatentable over Mershon et al in view of Thomas. A review of the cited references, the office comments and the claims it is submitted the office is in error. More specifically, a reference to Figure 2 and 3 of applicants drawings reveals the claimed "optical coupling elements" of applicants' claims are simply not found in the primary Mershon reference, is used in rejection of all the claims.

It is noted that the Mershon et al employs "optical redirectors 234" that redirect an optical signal. Applicant can also redirect a light signal, however the present invention is not directed to "optical redirectors" but to "stackable optical coupling elements" as opposed to light directing members which may be placed in an optical coupling element. For example, claim 1 points out that the "optical coupling element" is "a translucent body having one entry/exit stacking face and at least one optical entry/exit stacking face" and "a light directing member secured within the translucent body to direct a light signal between the optical entry/exit face and the at least one optical entry/exit stacking face." The applicant calls the office attention to applicants specification page 7 line 9 to page 9 line 5 and the accompany Figures 2-3 which point out the " optical coupling elements" are not the same as the light redirectors of Mershon since the optical coupling elements comprises passive entry and exit faces or ports for light.

To support the 102 rejection based on Mershon the office has called the applicants attention to paragraphs 18-32 and Figures 2, 5 and 6 of Mershon; however, a review of those paragraphs and the Figures of Mershon fails to show the "optical coupling element" of

claim 1. It is noted that Mershon states he uses an optical redirector 234 but applicant has been unable to find that Mershon uses an "optical coupling element" which is called out for in claim 1 as "a translucent body" and has "a light directing member located between an exit entry stacking face of the translucent body and optical entry/exit face and the at least one optical entry/exit stacking face". By use of applicants' "optical coupling elements" one can stack the various "optical coupling elements" in a via. The feature of optical coupling elements and stacking of optical couple elements is not shown in Mershon.

It is noted that the office may have been taking the position that applicants' claimed "optical coupling elements" is the optical redirector 234 of Mershon, however, to do so ignores applicants specification and drawings wherein the applicant points out and describes the "stackable optical coupling elements" and its use. The present invention is directed to so described unique, "stackable carrier" which passively allows light from outside the carrier into the carrier and then allows the light to pass out of the carrier. Mershon has various types of light redirectors which possibly could be placed in the applicant's carrier; however, the applicants' claims are directed to unique stackable carriers and not what one may put in the "optical coupling element".

Reconsideration of the rejection of independent claim 1 and dependent claims 2-8 thereto is requested since the base reference Mershon fails to disclose the existence of the "optical coupling element" of claim 1 since to do so would redefine the meaning of the applicants words in a manner with the explicit description shown in Figures 2 and 3 and the related description in the specification.

Independent claim 9 was rejected on the combination of Mershon and Allman, however, claim 9 also claims the "optical coupling elements", which are shown in Figure 2 and

Figure 3 of the applicants disclosure. Again, Mershon fails to disclose “an optical coupling element” and he further fails to disclose a “transparent element” as called for in claim 9.

In regard to Independent claim 10, claim 10 also calls for the optical coupling element in the via. Mershon simply does not have an optical coupling element in his vias. Note, Figure 2 shows that even the optical fibers 224 of Mershon, which are located between layers 204 and 206 do not extend into his vias 230 and 232 but terminate outside the vias.

In regard to dependent claims 11-16, it is submitted that the rejection on Mershon is also in error for the reasons stated above and the combination of Mershon and Allman is in error and therefore claims 11-16 are allowable.

In regard to independent method claim 17 under 102 or 103 and dependent claims 18-25 it is submitted that neither of the cited references show the claimed feature of extending an “optical coupling element” into a via and therefore the combination cannot be sustained.

In regard to independent claim 26 which is again rejected using Mershon as the primary reference, however as pointed out above Mershon does not have an “optical interconnection device”

In regard to independent claim 29 neither of the cited references show the “a translucent body having an entry/exit face positioned at the first level and an entry/exit face positioned at the second level to permit a light signal transfer from the first level to the second level or vice versa”

In regard to claim 30 neither of the cited references show:
“a translucent body;

a first entry/exit face on said body;
a second entry/exit face on said body; and
means within said translucent body for directing a light signal from said first entry/exit face to said second entry/exit face or vice versa"

It is submitted the office is in error by ignoring that the coupling elements which are included in the claims and find support in the specification are simply not found in the cited art.

Claim 5 has been amended to correct for a typographical error by changing includes to includes.

Accordingly, the applicant requests withdrawal of the rejection and requests a notice of allowance.